

jc772 U.S. PTO

**PATENT APPLICATION TRANSMITTAL LETTER**  
(Small Entity)

Docket No.  
8209.5DC

TO THE ASSISTANT COMMISSIONER FOR PATENTS

transmitted here.

For: WHEEL COVER WITH IMPROVED RETENTION SYSTEM

Enclosed are:

- Certificate of Mailing with Express Mail Mailing Label No.
  - 3 sheets of drawings.
  - A certified copy of a application.
  - Declaration       Signed.       Unsigned.
  - Power of Attorney
  - Information Disclosure Statement
  - Preliminary Amendment

Verified Statement(s) to Establish Small Entity Status Under 37 C.F.R. 1.9 and 1.27.

Other: Assignment and Cover

**CLAIMS AS FILED**

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	8	- 20 =	0	x \$9.00	\$0.00
Indep. Claims	1	- 3 =	0	x \$40.00	\$0.00
Multiple Dependent Claims (check if applicable)	<input type="checkbox"/>				\$0.00
				BASIC FEE	\$355.00
				TOTAL FILING FEE	\$395.00

- A check in the amount of **\$395.00** to cover the filing fee is enclosed.

The Commissioner is hereby authorized to charge and credit Deposit Account No. **50-0548** as described below. A duplicate copy of this sheet is enclosed.

Charge the amount of \_\_\_\_\_ as filing fee.

Credit any overpayment.

Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.

Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

Dated: October 30, 2000

 *Martha Head*

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**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
STATUS (37 CFR 1.9(f) AND 1.27 (c)) - SMALL BUSINESS CONCERN**

Docket No.  
**8209.506**

Serial No.	Filing Date	Patent No.	Issue Date

Applicant/ **IACOVELLI, M. et al.**

Patentee:

Invention: **HEAVY DUTY VEHICLE FLOOR MAT**

I hereby declare that I am:

- the owner of the small business concern identified below:  
 an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN: **Rally Manufacturing, Inc.**

ADDRESS OF CONCERN: **5255 NW 159th Street, Miami, Florida 33014**

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 37 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the above identified invention described in:

- the specification filed herewith with title as listed above.  
 the application identified above.  
 the patent identified above.

If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed on the next page and no rights to the invention are held by any person, other than the inventor, who could not qualify as an independent inventor under 37 CFR 1.9(c) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- no such person, concern or organization exists.  
 each such person, concern or organization is listed below.

FULL NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Individual       Small Business Concern       Nonprofit Organization

FULL NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Individual       Small Business Concern       Nonprofit Organization

FULL NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Individual       Small Business Concern       Nonprofit Organization

FULL NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

Individual       Small Business Concern       Nonprofit Organization

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Marc Iacovelli

TITLE OF PERSON SIGNING

OTHER THAN OWNER: President

ADDRESS OF PERSON SIGNING: 5255 NW 159th Street

Miami, Florida 33014

SIGNATURE: 

DATE: 10/26/00

## HEAVY DUTY VEHICLE FLOOR MAT

### **BACKGROUND OF THE INVENTION**

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The invention relates to floor mats for automobiles and especially floor mats designed for use with construction vehicles, load hauling vehicles, or other heavy duty work vehicles. In such work vehicles the vehicle driver or passengers may be wearing rugged work boots which tend to accumulate mud, moisture, and debris build-up that is ultimately deposited on the floor of the work vehicle. Worker's boots also tend to  
10 be more damaging to an interior floor of the work vehicle due to the heavy and rugged sole construction.

It has long been the practice to cover the interior areas of an automobile which are subjected to heavy wear with separate floor mats, whether or not such interior areas are previously carpeted. It has been important in the design of floor mats to attempt to collect and store water and debris from shoes of drivers and  
15 passengers. Prior floor mat construction have also been designed with means to retain the floor mat in a proper position within the vehicle to prevent twisting or riding up of the floor mat under the vehicle pedals. It has also been recognized that it is necessary for a floor mat to neatly fit the area it covers without folds, wrinkles, or buckles, which may interfere with the operation of the vehicle. In view of the concerns of the prior art and the additional requirements of a work vehicle application, the apparent advantages and objects of the  
20 invention will be described hereinafter.

It is an object of the invention to provide a durable heavy-duty floor mat for use in construction or other work vehicles. It is a further object of the invention to provide a floor mat for collecting debris and moisture associated with work vehicles. Another object of the invention is to provide an extra-durable surface in areas  
25 of the floor mat most susceptible to wear. A specific object of the invention is to provide a shoe traction surface and a shoe-scraping surface on a floor mat. It is a further object of the invention to achieve a snug fit of a vehicle floor mat without substantial folds or wrinkles.

## SUMMARY OF THE INVENTION

The invention is vehicle floor mat constructed to form a molded flexible mat. The mat has a raised peripheral lip provided on side edges of the molded mat. A first area of the mat is contained within the peripheral lip.

- 5 The first area has a recessed bottom surface and a plurality of raised protrusions extending from the bottom surface in order to provide a texturized surface, with a first texturized surface pattern. A second area of the mat is also contained within the peripheral lip. The second area has a recessed floor and a plurality of elongated parallel ridges protruding from the recessed floor, providing the second area with a second texturized surface pattern different from the first pattern. The second area further comprises a plurality of
- 10 raised bumps on the recessed floor in between the parallel ridges. The vehicle floor mat is designed so that the first area of the molded mat generally covers an upper section and a lower section of a substantial floor area of the mat, and the second area of the molded mat generally covers a middle section of the substantial floor area of the mat.
- 15 The floor mat has at least one wear plate fixed upon the bottom surface of the molded mat. The wear plates include a heel plate located in the lower section of the mat and a toe plate located in the upper section of the mat. The wear plate is surrounded at its edges by a contoured wall, which is raised and extends up from the bottom surface. The wear plate comprises a metal plate having a texturized surface pattern. The vehicle floor mat has a back side of the molded mat. The back side has at least one gripping section for gripping the
- 20 vehicle floor. The gripping section having a plurality of outwardly extending protrusions which are slip-resistant. The gripping sections are located on the back side of the mat opposite the wear plates fixed to the front surface of the mat.

## BRIEF DESCRIPTION OF THE DRAWINGS

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The above mentioned advantages and objects of the present invention will further become apparent when taken with the detailed description of the invention and with the drawings in which:

Figure 1 is a top plan view of a floor mat according to the present invention;

Figure 2 is a bottom plan view of the floor mat according to the present invention;

Figure 3 is a left side view of Fig. 1;

Figure 4 is a left side view of Fig. 2;

Figure 5 is a front elevational view of Fig. 2;

Figure 6 is a front elevational view of Fig. 1;

5 Figure 7 is a perspective view of the floor mat according to the invention; and

Figure 8 is a cross-sectional view of Fig. 1 taken along line VIII-VIII.

#### **DETAILED DESCRIPTION OF THE INVENTION**

10 Referring to the Figures, the present invention is shown generally as floor mat 10 which has a durable construction of molded rubber material, vinyl, or other suitable material which is moldable, flexible, and durable. The floor mat is typically positioned on the interior floor surface of a vehicle cab in front of a driver or passenger seat to protect the underlying surface. The floor mat 10 has a texturized front surface 12 comprising a first area 14 having a first recessed bottom surface 16. A pattern of raised diamond shaped protrusions 18 substantially covers the first area 14. The diamond shaped protrusions 18 cover an upper and lower portion of the floor mat to provide a texturized surface against which a person's shoes can rub to remove dirt debris and moisture, which can then collect in the bottom surface 16. The upper portion of the floor mat is typically positioned against an inclined surface of the firewall of the vehicle underneath the vehicle pedals, and the lower portion of the floor mat is usually horizontally positioned in front of the seat.

15 The texturized surface of the floor mat 10 further provides traction for a person bearing their shoes against allowing for easy positioning of the person within their seat.

20

The floor mat front surface 12 has a second area 20 with a second recessed bottom surface 22. A plurality of raised parallel lengthwise ridges 24 are provided within lengthwise indentations 26. The lengthwise indentations 26 have a lower bottom surface relative to the second recessed bottom surface 22. The arrangement of the ridges and indentations provide an area to scrape and collect dirt, mud and moisture from the bottoms of a passenger's shoes. This second area 20 is usually positioned in a transition area between the inclined upper portion of the floor mat and the level horizontal lower portion of the mat, so dirt and moisture removed or collected from the upper portion of the first area of the floor mat may fall into the

second area, and be collected within the indentations 26. In between the ridges 24 are rows of spaced raised bumps 28 which further aid to scrape mud and provide traction.

A continuous raised inner lip 30 and grooved channel 32 are provided around the first and second areas 14,

5 16 of the floor mat 10 for containing and collecting dirt, debris, liquid and moisture within the grooved channel. The inner lip 30 is surrounded by discontinuous outer lip sections 34 and a second grooved channel is provided between the inner lip 30 and outer lip sections 34. Additionally, draining channels 36 are spaced between the outer lip sections 34 to allow for excess moisture or liquid to drain from the second channel between the inner lip 30 and the outer lip sections 34. Around the periphery of the floor mat 10 are a number  
10 30 of bendable wing-like flaps 38 which are generally flat and thin. The bendable flaps can be positioned against curved portions or walls of the interior of the vehicle, such as against the inner lower wall of the door sill and the middle hump wall between the floor portions of the front seats. With the flaps positioned against these walls in a curved manner, excess moisture is contained on the floor mat. Since the flaps are relatively thin compared to the overall thickness of the floor mat, the flaps can be trimmed down with scissors if desired, to  
15 30 achieve the best fit of the floor mat for a particular floor area.

The floor mat according to the invention is provided with a texturized metal toe plate 40 and a texturized metal heel plate 42. The toe plate 40 is adjacent the first area of the floor mat which is typically positioned under the vehicle floor pedals so that a driver may extend their foot to the toe plate and bear against the toe plate. Also the toe plate may be positioned under a clutch or other pedal to protect the floor mat surface from excessive pedal wear. The heel plate 42 is provided in the lower center of the floor mat where a passenger's shoes would rest or bear against when not operating the vehicle. The toe plate 40 and heel plate 42 are provided with a pattern of raised almond-shaped ridges 44 arranged in a criss-crossed pattern of groups of five ridges or any other diamond shape pattern. The ridges 44 provide a scraping surface for shoes and a  
20 25 wear resistant plate surface is general. The toe plate 42 and heel plate 44 are positioned on the recessed bottom 16 of the floor mat and are contained within surrounding walls 46, 48, respectively, which are raised from the recessed bottom. The toe and heel plates are maintained in position by a plurality of rivets 50. The rivets pass through the floor mat at rivet holes 52, as view in Fig. 8.

Referring to Figs. 2-6, the back surface of the floor mat 10 will be described. The back surface of the floor mat is substantially smooth and a reverse pattern of the front surface of diamond protrusions, ridges and bumps, and lips and channels, remains from the floor mat molding process. Two main gripping sections 54, 56 are provided behind the attached toe and heel plates 42, 44, respectively. The gripping sections 54, 56 5 comprise a plurality of vertically extending protrusions 58 which are uniformly spaced thereover. Additional gripping portions 60 are spaced in small clusters of five protrusions 58 between the reverse pattern of diamond protrusions at the upper and lower sections of the floor mat 10. The gripping sections 54, 56 and gripping portions 60 bear against the underlying vehicle floor surface and the protrusions 58 provide a slip resistant grip between the floor surface and the floor mat. The back surface of the floor mat is provided with 10 reinforcing ribs 62 backing the inner lip 30 to maintain the raised formation of the inner lip.

It will be understood that the shaped of the depicted floor mat 10 fits a profile of the driver's side of a work vehicle. The floor mats of the invention are also useful on the passenger side and back seat floor areas, and 15 in cargo areas of a vehicle. In use the floor mat is simply positioned on the floor to be protected. In the present embodiment the left side of the floor mat would be positioned against the door sill, the right side positioned against the center hump, and the top side of the floor mat would be positioned against the surface 20 of the firewall at the vehicle pedals. Upon a slight downward pressure exerted on the mat, the protrusions on the backside of the floor mat interact with the floor surface, carpeted or otherwise to maintain the floor mat position. The double lip surrounding the edges of the floor mat is designed to contain the contents collected on the mat.

In due course the flexible floor mat is easily and readily removed from the vehicle by simply lifting it vertically and out from the vehicle. It will be understood that the mats of the invention are custom made to conform with a particular vehicles interior area. Excess floor mat material can ultimately be trimmed of the molder 25 floor mat and discarded as waste. The resulting floor mat has a high quality construction and is laid within the floor compartment with no substantial folds or wrinkles. Having thus described the invention in its preferred embodiment, it will be understood by those skilled in the art that modifications or changes in details of the invention may be implemented without departing from the spirit and scope of the invention as defined in the following claims.

## CLAIMS

What is claimed is:

5     1. A vehicle floor mat comprising:

a molded flexible mat having a raised peripheral lip provided on side edges of the molded mat;  
a first area contained within the peripheral lip, said first area having a recessed bottom surface and a plurality  
of raised protrusions extending from said bottom surface thereby providing a texturized surface; and  
at least one wear plate fixed upon the bottom surface of the molded mat.

10

2. The vehicle floor mat according to claim 1, further comprising:

a second area contained within the peripheral lip, said second area having a recessed floor and a plurality of  
elongated parallel ridges protruding from the recessed floor.

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3. The vehicle floor mat according to claim 2, wherein said second area further comprises a plurality of  
raised bumps on the recessed floor in between the parallel ridges.

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4. The vehicle floor mat according to claim 3, wherein said first area of the molded mat generally covers an  
upper section and a lower section of a substantial floor area of the mat, and said second area of the  
molded mat generally covers a middle section of the substantial floor area of the mat.

5. The vehicle floor mat according to claim 4, wherein said at least one wear plate comprises a heel plate  
located in the lower section of the mat.

25

6. The vehicle floor mat according to claim 4, wherein said at least one wear plate comprises a toe plate  
located in the upper section of the mat.

7. The vehicle floor mat according to claim 4, wherein said at least one wear plate comprises a toe plate located in the upper section of the mat and a heel plate located in the lower section of the mat.

8. A vehicle floor mat comprising:

5     a molded flexible mat having a front surface with a raised peripheral lip provided on side edges of the molded mat;

   a first area contained within the peripheral lip, said first area having a first texturized surface pattern;

   a second area contained within the peripheral lip, said second area having a second texturized surface pattern different from said first pattern, wherein said first area of the molded mat generally covers an upper

10    section and a lower section of a substantial floor area of the mat, and said second area of the molded mat

   generally covers a middle section of the substantial floor area of the mat; and

   at least one wear plate fixed upon a recessed bottom surface of the first area of the molded mat.

15    9. The vehicle floor mat according to claim 8, wherein said at least one wear plate is surrounded at its

   edges by a contoured wall, raised and extending up from the bottom surface.

20    10. The vehicle floor mat according to claim 8, wherein said at least one wear plate comprises a metal plate  
   having a texturized surface pattern.

20    11. The vehicle floor mat according to claim 8, wherein said at least one wear plate comprises a toe plate  
   located in the upper section of the mat and a heel plate located in the lower section of the mat.

25    12. The vehicle floor mat according to claim 8, further comprising a back side of the molded mat, said back  
   side having at least one gripping section for gripping the vehicle floor, said gripping section having a  
   plurality of outwardly extending protrusions.

13. The vehicle floor mat according to claim 12 wherein said at least one gripping section located on the  
   back side of the mat opposite said wear plate fixed to the front surface of the mat.

## **ABSTRACT**

The invention is a molded flexible heavy-duty floor mat with attached metal wear plates designed to fit in the floor compartment area of a car, van, pick-up truck, sport utility or work vehicle. The floor mat surface is

5 texturized with raised protrusions and ridges to provide non-slip shoe traction and shoe scraping surfaces.

The floor mat has recessed areas, indentations, and channels to collect scraped or loosened debris and moisture. A peripheral double lip or wall contains the debris and moisture on the floor mat. The attached wear plates are texturized for additional scraping and traction purposes and are attached in areas of the floor mat which are most susceptible to wear, such as near the vehicle pedals and in the stepping area of the floor

10 mat. The floor mat has back gripping area to secure and maintain the mat against the vehicle floor. The mat may be readily cleaned by removing the entire mat out from the vehicle

Fig. 1

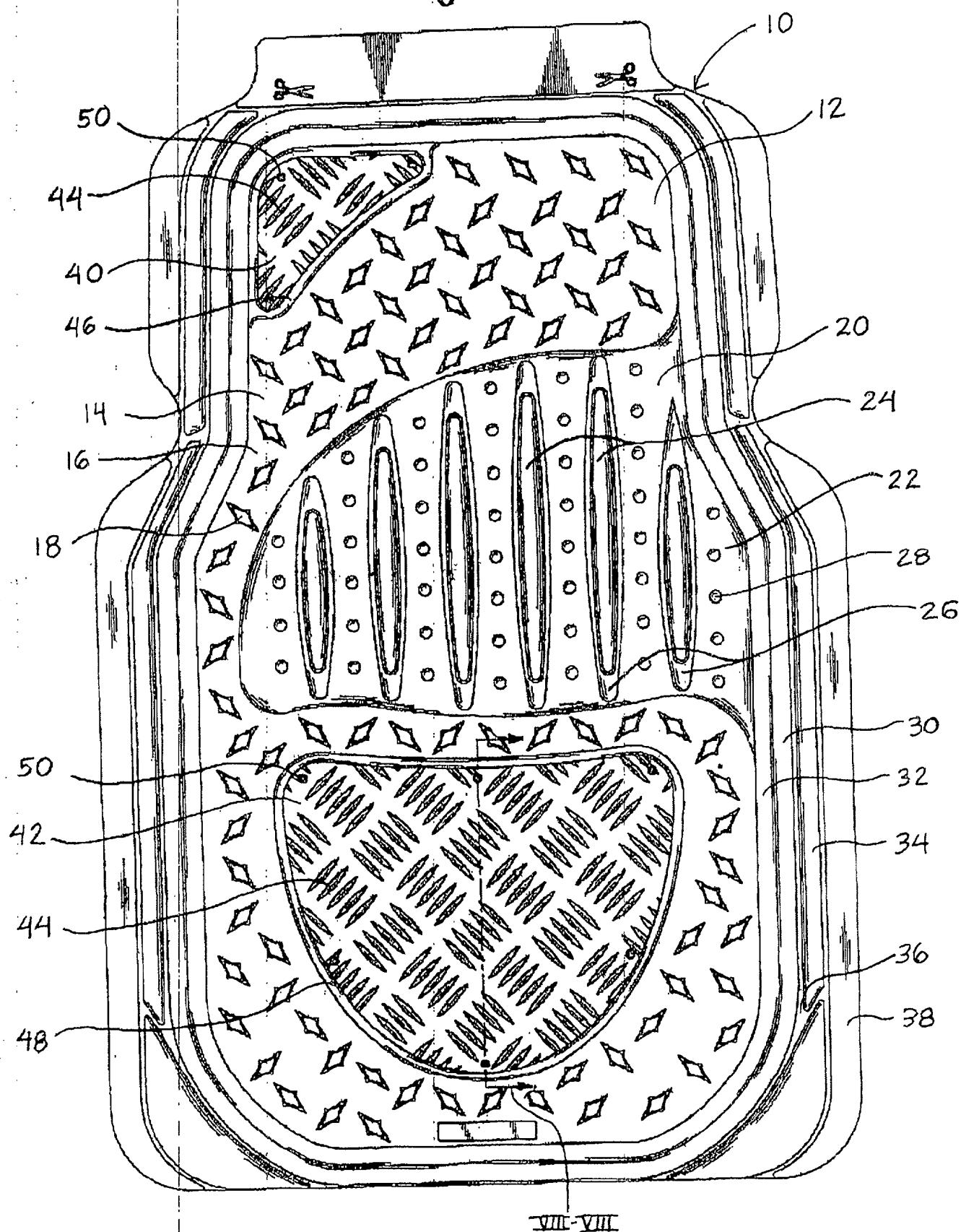


Fig. 2

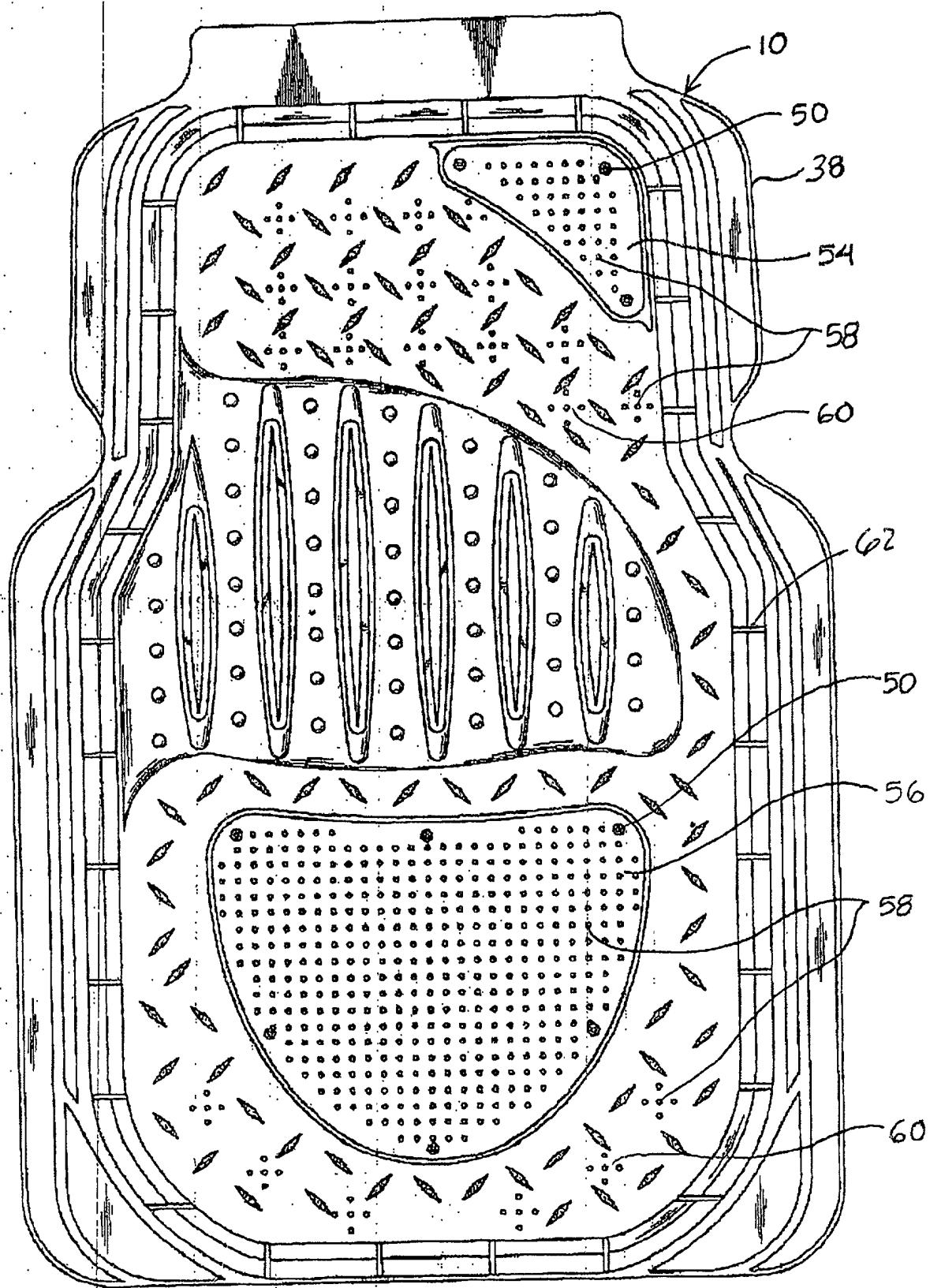


Fig. 3



Fig. 4

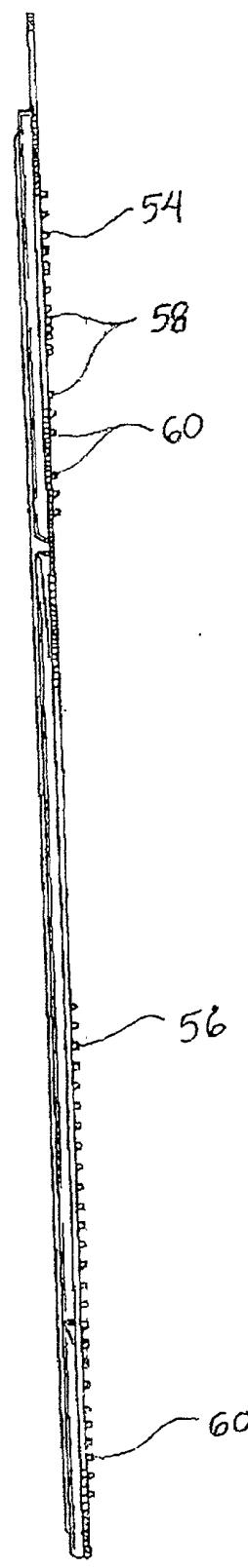


Fig. 5

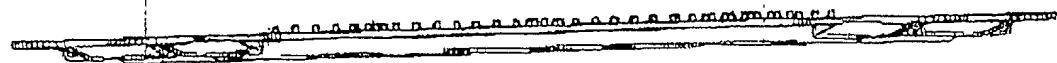
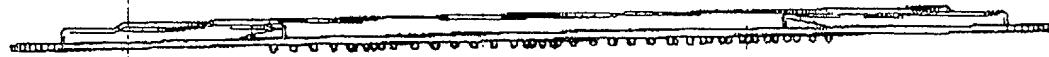
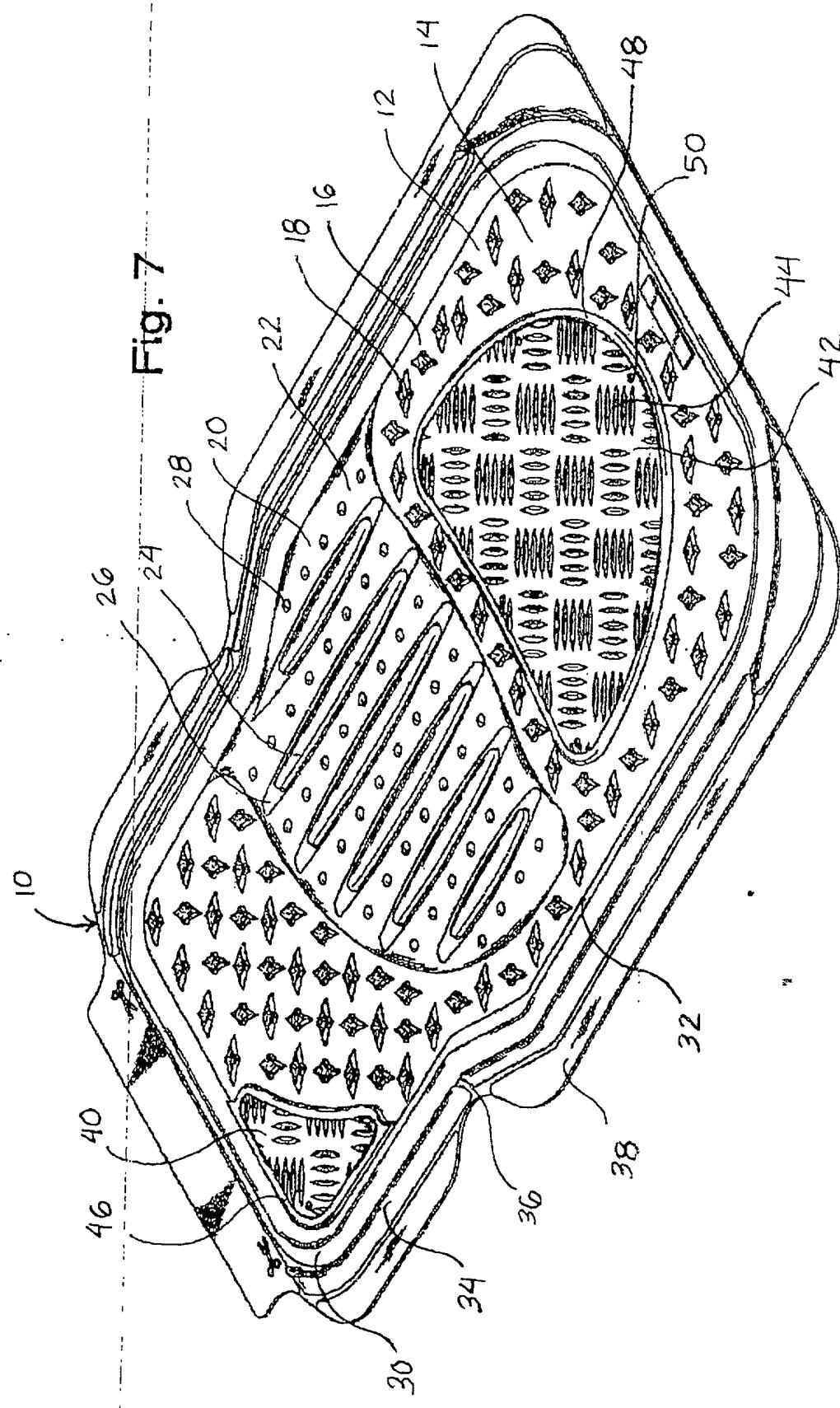
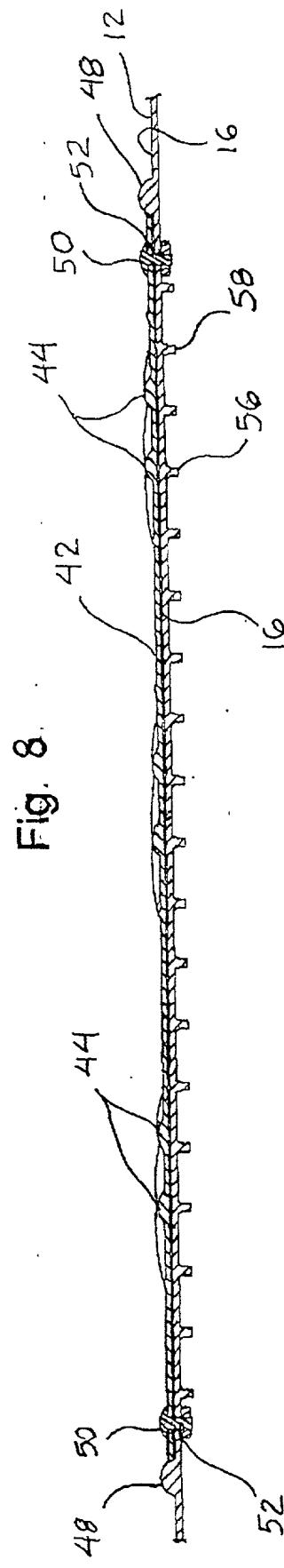


Fig. 6







Docket No.

8209. 506

# Declaration and Power of Attorney For Patent Application

## English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**HEAVY DUTY VEHICLE FLOOR MAT**

the specification of which

(check one)

is attached hereto.

was filed on \_\_\_\_\_ as United States Application No. or PCT International

Application Number \_\_\_\_\_

and was amended on \_\_\_\_\_

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

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I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

(Application Serial No.)	(Filing Date)
(Application Serial No.)	(Filing Date)
(Application Serial No.)	(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

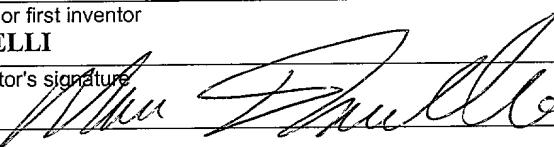
**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (*list name and registration number*)

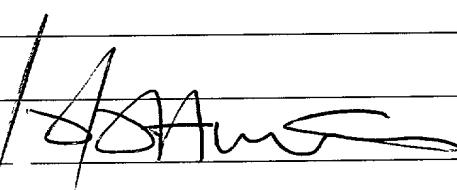
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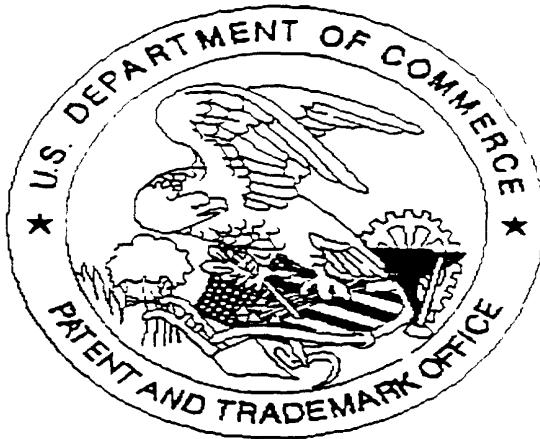
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 Matthew W. Stavish (301)896-0600

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Residence <b>5255 NW 159th Street, Miami, Florida 33014</b>		
Citizenship <b>US</b>		
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Full name of second inventor, if any <b>Saeid HUSSAINI</b>	Second inventor's signature 	Date 10/26/00
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United States Patent & Trademark Office  
Office of Initial Patent Examination -- Scanning Division



SCANNED, # 14

Application deficiencies were found during scanning:

Page(s) \_\_\_\_\_ of \_\_\_\_\_ were not present:  
for scanning. (Document title)

Page(s) \_\_\_\_\_ of \_\_\_\_\_ were not present:  
for scanning. (Document title)

There are 6 sheets of drawings.

Scanned copy is best available.